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Wrangling the Web: Advanced Tools for Effective Internet Searching

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**WRANGLING THE WEB: ADVANCED TOOLS FOR
EFFECTIVE INTERNET SEARCHING**

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WRANGLING THE WEB: ADVANCED TOOLS FOR EFFECTIVE INTERNET SEARCHING

I. Introduction

Google is great. It really is. I no longer cringe when I hear a law student say “I googled it.” Yes, many resources are not found on the Web. It is also true that Google retrieves many more Web pages than are actually relevant for the searcher. However, a quick Google search wastes little time and often produces the exact item sought or, at the very least, helps the researcher further along the path to finding the item.

What does make me cringe is learning that a researcher has given up when a basic Google search fails to retrieve the desired document or information. Perhaps a refined search query will produce more targeted results. Maybe the item will be found more easily using a specialized Google product, such as Blog Search or Google Scholar. It may also be that the item is only available in a fee-based resource (or a book!).

The purpose of this paper is to provide tips that will help the researcher retrieve more refined results in Google. In addition, the paper discusses several additional web research tools residing outside of the Google products toolbox.

II. Google’s Search Tools

Google allows the searcher to place numerous limits on the results returned by a search query. By either using a code in the basic search box or utilizing the features in the Advanced Search boxes, researchers can craft a narrowly-focused search query that will return a higher percentage of relevant pages.

Exclude words:

use the minus sign directly in front of words you do not want to appear in your

search results. **Lhasa -apso** finds sites about the Tibetan city and not the dog.

Find definitions:

type “define:” followed by the word you want defined, and Google will provide a list of web sites providing a definition. Try **define:mulct**.

Use wildcard operator:

use an asterisk (*) to formulate a search query asking Google to fill in the blank.

Christopher Columbus died in * retrieves numerous sites providing the year of Columbus’ death (it was 1506, by the way).

Limit by language:

Google’s advanced search form http://www.google.com/advanced_search?hl=en allows researchers to limit search results by one of over 40 languages. Simply choose the language in the drop down box.

Search a specific domain:

Google allows searchers to limit their results to pages within a specific domain by typing “site:” before the desired domain abbreviation. For example, a researcher may desire only pages assigned a government, or .gov, domain. A search of **improving school lunch site:.gov** will only retrieve pages with the .gov domain. Placing a minus sign in front of the same search will retrieve pages from all domains but the typed one, so that **improving school lunch -site:.com**

will pull up sites with .edu, .org, and .gov domains while excluding those with a “.com” domain.

When searching for foreign materials, I find that specifying both a language and a country-specific domain often retrieves the best results. For example, a search for **bananas industry site:.sv** limited by **English** in the drop down box retrieves a relevant list of pages about El Salvador’s banana industry in English. The Internet Assigned Numbers Authority (IANA) provides a complete list of domain extensions at <http://www.iana.org/domains/root/db/> .

Searching a specific web site:

The “site:” limiter also allows the researcher to further limit the search by limiting the results to pages within a specific web site. Type “site:” followed by the web site. A search for **constitutional law site:www.law.uga.edu** will only retrieve sites with that term on the UGA School of Law web site.

Limit your results by a number range:

Google allows you to specify a specific number range by placing two periods between the desired numbers. A search for **diabetes research 2008..2009** theoretically retrieves results limited to diabetes research from those two years. The number range limiter works best when the search engine can ascertain from the context of the query exactly what is being limited.

Force search for exact word:

Google assists searches by automatically including results for certain synonyms and variant spellings and abbreviations. To bypass this automatic expansion of your search query and force Google to return results including only the exact word as typed, place a + directly in front of the word. For example, a search for **+canine diseases** will only return results including the word “canine” whereas the same search without the plus symbol would also return results with the word “dog” even if the word “canine” was not included.

Find street addresses and phone numbers:

Google Phonebook provides street address and phone number searching through the regular search box. If a query includes a name and city or state, publicly listed phone numbers and addresses will display at the top of results pages. You can force Google to perform a phone listing search by typing “phonebook:” followed by the name and city or state of the person you seek. For example, a query of **phonebook: John Smith New York NY** will retrieve the phone numbers and addresses of over 40 John Smiths with listings in New York City.

Proximity searching:

The lack of proximity searching in Google may be viewed as a shortcoming, and Staggeration <http://www.staggeration.com/cgi-bin/gaps.cgi> attempts to address the lack of this search function by providing a search box that creates all the possible combinations that a proximity search such as **John within 2 of**

Smith would create, thereby allowing the searcher to simultaneously search for John Smith, John X. Smith, John Xxxx Smith or Smith, John. The creators of this search function allow that “[p]roximity searching on this very basic and clumsy level may or may not do anyone any good (especially since Google already seems to take proximity into account to some extent when ranking results for multiple terms on a page),”¹ but it is an attempt to provide a more sophisticated function in creating Google queries.

III. Google’s Special Products

In addition to basic web searching, Google offers a variety of products designed to search specific types of documents. Are you seeking a scholarly article? Try Google Scholar. How about an image? Google Image may just be the answer. Seeking analysis of current subjects by an expert? You might just find a relevant discussion via Google Blog Search.

A small sampling of Google’s special products are discussed here. Look for a full listing <http://www.google.com/intl/en/options>.

Google Scholar (now with legal opinions!)

<http://scholar.google.com/>

Google Scholar searches articles, theses, books, and abstracts from academic publishers, professional societies, online repositories, universities and other web

¹Google API Proximity Search, <http://www.staggernation.com/gaps/readme.php>

sites. Particularly exciting is the November 2009 expansion of Google Scholar to include the **full text of legal opinions and journals** from US federal and state district, appellate and supreme courts. Researchers must choose between the Articles collection and the Legal Opinions & Journals collection by clicking the desired radio button under the search box.

As of late January 2010, Google Scholar included opinions for US state appellate and supreme court cases since 1950, US federal district, appellate, tax and bankruptcy courts since 1923 and US Supreme Court cases since 1791. The Advanced Search form for Google Scholar allows the researcher to limit the results to federal court decisions or to those from specified states. Google Scholar also serves as a citator by listing in the sidebar the cases which subsequently cite the displayed case.

Google's inclusion of the following disclaimer on their Legal Opinions page

Legal opinions in Google Scholar are provided for informational purposes only and should not be relied on as a substitute for legal advice from a licensed lawyer. Google does not warrant that the information is complete or accurate.

leads to a similar statement here: do not assume that the results include all relevant case law on a specific legal issue! This collection should serve solely to give the researcher an idea of the law or to help locate a specific case.

Google Images

<http://www.google.com/imghp?hl=en>

If you seek a photograph, Google Image searching might quickly locate a useful image. Many employers include employee photos on their sites. Photos also show up frequently on sites posted for conferences, sporting events, and other gatherings. Go to <http://images.google.com/> and enter your own name. You might be surprised to find a photo of yourself posted on a site.

Google Blog Search

<http://blogsearch.google.com/>

Lawyers and legal scholars have taken to blogging (or blawging) like fish to water, and legal blogs can be an excellence source of cutting edge commentary and analysis on current legal topics. Google Blog Search can help you find blog entries on a specific topic. Google Blog's self-stated goal is to "include every blog that publishes a site feed (either RSS or Atom)." The product searches blogs written in a number of languages, and the familiar Advanced Search form is also available for researchers desiring more control over the search.

Google Trends

<http://www.google.com/trends>

This fun feature allows the researcher to compare the frequency of Google searches over time on up to five words. Enter the search terms separated by a comma and Google Trends returns a graphic representation of those search

terms. Entering **federer,nadal** returned a graphic representation of the number of queries for each tennis player. The graph indicated spikes in interest in the tennis player as he reached the finals of major tournaments.

IV. Beyond Google

There is no denying that web searchers, including this author, rely heavily on Google, but it is by no means the only game in town. Competitors like Microsoft seek to compete head-to-head with Google in the search engine market. Other products aim to fill niches not specifically occupied by Google. I discuss a few of these products here.

Bing

<http://www.bing.com/>

Microsoft launched its Bing search engine in May 2009 to much fanfare from the software giant. Bing replaces Microsoft's "Live Search" search engine. The biggest difference between Bing and Google appears to be in the appearance and features on the search results page. Bing organizes results into categories, including: Images, Biography, Facts, Quotes, Speeches, Issues, Sports, Entertainment, Videos, and more. The search terms entered drive which categories display in the search results.

Some reviewers found that Bing does not index pages as quickly as Google (see BestTechie's review at <http://www.besttechie.net/2009/06/11/bing-review/>).

Some like the stunning images on Bing's home page, while others prefer the cleaner look of the Google page. A search on either Bing or Google for **bing vs. google** will bring up many reviews comparing the two products. And at <http://www.bing-vs-google.com/> a searcher can enter one search query and retrieve side-by-side results from both search engines.

Wolfram|Alpha

<http://www.wolframalpha.com/>

Described as a “computational knowledge engine,” Wolfram|Alpha is supposed to compute answers to the factual questions submitted via its search box.

Wolfram|Alpha launched in early 2009, and so far reviews have been mixed. Its apparent strength, so far at least, is in making data computable and represented in charts and graphs.

The results returned by Wolfram|Alpha are strikingly different than those returned by either Bing or Google. A search for **Georgia population** in Wolfram|Alpha returns a graph depicting the population of the state of Georgia from 1800 through 2008. The same search in Google also returns a graph, this time indicating the rise in Georgia's population from 1980 to 2008 followed by a series of links to pages with information about the state's population.

Several reviewers had search queries rejected by Wolfram|Alpha. Its creators state that it is a work in progress with the promise of more to come.

Legal Research Engine at Cornell

<http://library.lawschool.cornell.edu/WhatWeDo/ResearchGuides/CLL-Legal-Research-Engine.cfm>

The pioneers at Cornell's law school and library have been providing access to legal materials via the internet for many years. Their Legal Research Engine continues to provide keyword access to these materials using one of four search boxes: Legal Research Guides, the Legal Internet, Academic Blawgs, and I Want It All!

DocStoc and Scribd

<http://www.docstoc.com/>

<http://www.scribd.com/>

Not everything is available on the Web, especially without charge. Researchers who are willing to pay can access many different types of documents on fee-based sites such as DocStoc and Scribd, both of which serve as iTunes-type shops for materials from numerous different publishers. Customers can purchase books, forms, and business documents at these document marketplaces.

V. Keeping Current with Web Searching Developments

The tools for searching the Web continually change. How is one to keep up with the latest features and products? Pandia Search Engine News at <http://www.pandia.com/index.html> aims to cover developments in search engines with its blog reporting of the latest trends, legal issues, searching products, and more. Another useful site for tracking developments in search engines is Search Engine Watch at <http://searchenginewatch.com/> with articles of interest both to the searcher and to

web site producers who want to optimize their site's appearance in search engine results lists. The folks at Search Engine Land <http://searchengineland.com/> also cover search engine marketing, searching issues and the search engine industry. All three of the above sites will also point the researcher to additional sites and blogs about Web searching and search engines.